ANNUAL REPORT

for the fiscal year
ending March 31, 1983

Victoria General Hospital

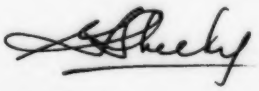
TO:

The Honourable Alan Abraham, C.D.
Lieutenant Governor of Nova Scotia

May It Please Your Honour:

I beg to present herewith the Annual Report of the Victoria General Hospital for the period of April 1, 1982 to March 31, 1983.

Your Obedient Servant



G. Sheehy
Minister of Health

Halifax, Nova Scotia
March 1983

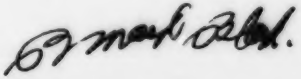
TO:

The Honourable Dr. G. Sheehy
Minister of Health
Province of Nova Scotia
Halifax, Nova Scotia

Dear Mr. Minister:

On behalf of the Board of Commissioners, it is my pleasure to submit to you the 116th Annual Report of the Victoria General Hospital covering the period April 1, 1982 to March 31, 1983.

Respectfully submitted,



R. MacDonald Black
Chairman
Board of Commissioners
Victoria General Hospital

Mr. R. MacDonald Black
Chairman, Board of Commissioners
Victoria General Hospital
Halifax, Nova Scotia

Dear Mr. Black:

I am pleased to submit the 116th Annual Report of the Victoria General Hospital for the period from April 1, 1982 to March 31, 1983.

The Victoria General Hospital is dedicated to the provision of exemplary health care through the integration of service, education and research programs in the health care field. The provision of tertiary hospital care services to adult residents of the Halifax region and elsewhere in the Province of Nova Scotia, has been identified by all concerned as the primary role of the Victoria General Hospital.

In accordance with this role, the Department of Surgery continued its contribution to the field of organ transplantation. During the past year eighty renal transplants were performed, making the Victoria General Hospital's renal transplant program one of the most active in Canada. As well, approval was received from the Department of Health for the establishment of the Hyperbaric Therapy Services at the Victoria General Hospital.

During the year under review, the Robert Clark Dickson Building, housing the Hospital's Ambulatory Care Centre and the Nova Scotia Cancer Research and Treatment Foundation, was officially opened by the Honourable John M. Buchanan, Q.C., Premier of the Province of Nova Scotia.

The opening of the Dickson Building provided an opportunity to continue the Hospital's efforts to foster interhospital collaboration through the integration of services of the Victoria General Hospital's Department of Radiation Oncology and the Halifax Infirmary's Department of Radiation Oncology, in co-operation with the Nova Scotia Cancer Research and Treatment Foundation.

A review of the Hospital's Emergency Services was undertaken and a search committee for a Department Head formed.

The Medical Staff have established a Clinical Department Heads Planning Committee which will be reviewing and recommending upon new and expanded clinical programs planned for the Hospital.

A Cost Review Task Force, whose mandate was to reduce hospital operating costs without impairing the provision and quality of essential services or the inhibiting of necessary growth in services, was established.

The Hospital/Medical Information System (HMIS) planning study was completed and nationally recognized as a major accomplishment in the

application of computer technology to hospital operations. Implementation of this study further progressed by the specification of a computer support system for the newly opened Ambulatory Care Centre.

A new SL1 telephone system was introduced in the Hospital in November 1982 along with a new radio paging system for the Halifax-Dartmouth hospitals. This new system provides internal paging for the individual hospitals with extended range into the Metro area and surrounding communities.

A major advancement in the field of patient care was realized with the establishment of Patient Education Television Programming.

The Hospital's evolving link with the community was enhanced by the Hospital's provision of medical support to the Pan-American Wheelchair Games held in Halifax.

The Board of Commissioners reviewed and confirmed the Hospital's Statements of Role and Priorities. The Board also undertook a review and reorganization of its standing committees which will facilitate the flow and qualilty of information the Board receives through its committees. Hospital By-laws were drafted by the Board for review by the Minister of Health. While the Board spent a great deal of time and effort on its own internal organization, the Board also continued with its commitment to greater involvement in inter hospital communication and development.

In summary 1982-1983 has witnessed the introduction of serious efforts on the part of the Hospital to recognize and implement its established role and priorities. The Hospital continues with its efforts to promote interhospital co-operation and planning which will ultimately benefit all the health care institutions in the Province of Nova Scotia.

It has been an interesting year in which to serve as the Executive Director of the Victoria General Hospital and I gratefully acknowledge the assistance provided to me by the Board and Staff of the Hospital during the past year.

Yours very truly,

R.L. Criddle, C.A.
Executive Director

TABLE OF CONTENTS

Statistical Summary 11
Statement of Income and Expenditure 12
Board of Commissioners 13
Administrative Staff 13
Admission and Discharge Department 15
Department of Anaesthesia 15
Audio Visual Department 16
Victoria General Hospital Auxiliary 16
Biomedical Engineering Department 17
Chaplaincy Services Department 18
Department of Diagnostic Radiology 18
Department of Dietetics 19
Emergency Department 20
Department of Gynecology 21
Health Sciences Library 21
Management Engineering 22
Materiel Support Services 22
Medical Records Department 23
Department of Medicine 25
- Cardiology Service 25
- Dermatology Service 26
- Endocrinology and Metabolism Service 26
- Gastroenterology Service 27
- General Medicine Service 27
- Infectious Disease Service 27
- Nephrology Service 27
- Rheumatology Service 28
Department of Microbiology 28
Department of Neurosurgery 33
School of Nursing 34
Nursing Division 35
Occupational Health Department 36
Department of Oral Surgery 37
Outpatient Department 38
Department of Pathology 38
Department of Pharmaceutical Services 42
Plant Engineering Department 45
Department of Psychiatry 45
Department of Psychology 47
Department of Radiation Oncology 48
Department of Social Services 48
Sterile Supply Service 49
Department of Surgery 50
Volunteer Services 50
V.O.N. Liaison Office 51
Analysis of Hospital Services 52

VICTORIA GENERAL HOSPITAL

Statistical Summary
Year Ending March 31, 1983

Bed Capacity	815
Total Admissions	20,376
Average Daily Occupancy	89.6
Average Days Stay	11.7
Total Patient Days	245,306
Outpatient Visits	43,206
Emergency Visits	39,978

Victoria General Hospital

Statement of Income and Expenditures

For the year ended March 31, 1983
(With comparative figures for 1982)

Income		**1982**
Inpatient services	$ 85,683,483	$77,827,742
Outpatient services	10,633,201	9,424,964
Other services	5,909,705	5,483,332
	102,226,389	92,736,038
Expenditure		**1982**
Nursing services	35,837,301	31,180,198
Diagnostic and therapeutic services	30,618,561	27,900,048
Education service	6,545,551	6,266,032
General services	10,166,785	8,635,950
Support services	18,615,460	17,066,780
	101,783,658	91,049,008
Excess of Income Over Expenditure	$ 442,731	$ 1,687,030

Board of Commissioners

Mr. R. MacDonald Black
Mrs. Margaret Davison
Prof. R.G. Murray
Mr. Wayne C. Paterson
Mrs. Gloria L. Quigley
Mr. David Zive
Mrs. Florence MacGillivary
Mrs. M.W. Fenton
Mr. Kenneth Brown
Mrs. L.P. Sanders
Mr. J.D.E. Geddes
Dr. W.F. Mason
Mr. R.L. Criddle

Administrative Staff

R.L. Criddle, C.A., Executive Director
J.H. Gillies, M.D., Medical Director
D.M. McNaughton, C.D., B.A., M.H.A., Administrative Director
M. Grantham, R.N., M.Sc.(A), Director of Nursing
J. Magee, R.N., B.Sc.N., Director School of Nursing
J.A. Stewart, B.Sc., P.Dt., Director of Dietetics
B. Shorter, N.B.A., Director Management Engineering
R.E. Buckley, B.Sc., M.B.A., Director Personnel
E.R. Ells, Acting Director Finance
W.A. Marsh, Budget Coordinator
J.C. Theriault, B.A., B.Comm., D.H.A., Director Ambulatory Care
C.F. Matheson, Director Special Projects
M.T. Gillis, R.N., B.Sc., Administrative Coordinator
K. Jackson, M.D., Administrative Coordinator
G. Burke, R.N., Supervisor, Emergency Department
M.P. Cody, B.A., Public Relations Officer
R.H. Arthur, B.E.E., Plant Engineer
W.C. Houlihan, Coordinator Materiel Support Services
W.D. Avery, Chief Fire and Security officer
R. Merrett, B.Sc.Phm., M.Sc.Phm., R.P.E.B.C, Director Pharmaceutical Services
G.I. Grant, R.N., B.Sc.N., Supervisor Outpatient Department
J.E. Legge, BSc.N., R.N., Acting Director Social Service
C. McCarthy, R.N., B.Sc.N., Chief O.R. Supervisor
C. Nicholson, C.C.H.R.A.(C), Head Medical Records
M. Wamboldt, R.N., Supervisor Admission and Discharge
J. Kublin, Coordinator Health Sciences Library
R. MacLean, B.A., M.Div., Coordinator Chaplaincy Services
M.A. MacLennan, President VGH Auxiliary
M.A. MacAulay, M.D., F.R.C.P.(C), Head Department of Pathology, Director of Division of Clinical Chemistry
J.H. Cooper, M.B., Ch.B., F.R.C.(Path), F.R.C.P.(C), Deputy Head Department of Pathology
G.E. Bisson, F.R.C.S.(C), Director Cytopathology

A.I. Bernardo, M.D., Associate Pathologist, Cytopathology
B.L. Sheridan, M.D., F.R.C.P.(C), Director Hematology
K.R. Rozee, M.Sc., Dip. Bact., Div. Head Microbiology
G. Digout, B.Sc., Dip. Bact., Div. Chief Technologist, Microbiology
E.V. Haldane, M.D., F.R.C.P.(C), Director, Medical Microbiology
R.S. Faulkner, M.Sc., Ph.D., Director Virology
R.S. Martin, B.Sc., Ph.D., Dip. Bact., Director Public Health
P.J. Ponsford, F.I.M.L.T., A.R.T., Div. Chief Technologist Anatomical Pathology
T. Boutilier, A.R.T., Div. Chief Technologist, Clinical Chemistry
P. Allsop, B.A., A.R.T., Div. Chief Technologist, Hematology
Z. Pinto, M.D., F.R.C.P.(C), Associate Hematologist

ADMISSION AND DISCHARGE DEPARTMENT

Inpatient admissions increased this year by 5.4 per cent to 20,276; correspondingly, separations increased by 6.3 per cent to 20,513. The average daily Hospital census was 673 compared to 653 last year. The average daily occupancy was 89.6 per cent compared to 88 per cent last year.

Day patients processed increased by 0.9 per cent to 9,480. Point Pleasant Lodge patients processed for admission increased by 23.9 per cent to 793.

Hardware has been installed to add a computerized Emergency Registration module to the present ADT system

Medical Receptionists were transferred to the Emergency Department on May 1, 1982, under the supervision of this Department. Reduced staffing requirements occurred in both areas due to the implementation of a computerized admission, discharge, transfer system. By attrition the total F.T.E.'s reduced from 42 to 31.

DEPARTMENT OF ANAESTHESIA

Clinical Service

The clinical responsibilities of the Department of Anaesthesia for Operating Room services for the year 1982-1983, and the preceding five years are summarized below.

Clinical Practice

	1977	1978	1979	1980	1982/83	
General	18,423	18,403	17,820	17,306	17,090	17,514
Spinals	63	66	59	81	109	130
Nerve Blocks	347	493	583	659	834	1,233
TOTAL	18,833	18,962	18,462	18,046	18,033	18,877

General Administrative Activities

The Audit and Morbidity/Mortality Review process of the Department of Anaesthesia is now proceeding well. The Departmental Rules and Regulations were finalized and are expected to be put into effect early next year. Considerable effort has been made to improve the surgical booking process and to obtain a computer assisted statistical data base for Operating Room statistics.

Finally, considerable effort has been made to achieve an improvement in narcotic and scheduled drug control, with the aid of the Hospital Pharmacy and Hospital Administration.

AUDIO VISUAL DEPARTMENT

New films and techniques have improved the quality and effectiveness of slide presentations throughout the hospital. The Department now provides overhead transparencies in colour to improve demonstrations of statistical data.

Since June 1982, the Department has had the responsibility for operating and maintaining the Channel 13 Patient Education Television programming.

The Department has started to produce sound slide productions, and will soon be able to produce video programs.

Statistics

Requisitions	1,085
Patients Photographed	355
Black & White Negatives Processed	943
Colour Slides Produced	10,129
Black & White Slides Produced	2,276
Colour Overheads Produced	1,832
Black & White Overheads Produced	2,850
Black & White Photographs Produced	1,827

VICTORIA GENERAL HOSPITAL AUXILIARY

The Victoria General Hospital Auxiliary has over 40 members, with a number of non-member volunteers. Over 16,000 volunteer hours were given by these ladies during the past year.

In-Service Programs

1. Free tea, coffee, or juice distribution to patients attending Outpatient Clinics or Emergency Department, five days weekly.

2. Library and Visiting Committees combined to give better coverage to the patients.

3. Over 4,000 floral pieces were taken to patients last year.

4. The mobile Gift Cart carried candy, gifts, books and toilet necessities on the floors, and is very greatly appreciated by patients and staff.

Members also act as cashiers in the Gift Shop, while others replenish the stock. Those members who are unable to be active in the Hospital give their support by making crafts and knitted goods, etc., for our sales.

Fund Raising Projects

1. Kris Kringle's Korner Sale in November.

2. Sale of books, cookbooks, raffle tickets, lottery tickets, chocolate bars and memorial cards.

3. Other monies were derived from Gift Shop sales, flower deliveries and stipends from the licensed operators of the Beauty Salon and Barber Shop, which operate on a daily basis for the use of staff, patients and visitors.

The Auxiliary was also responsible for the refinishing of an elevator with materials that have been proven almost vandal proof.

BIOMEDICAL ENGINEERING DEPARTMENT

During the year there were 30 new projects initiated by the Equipment Development section. Sixteen major projects were completed, nine from 1981/82 and seven from 1982/83. The major projects completed are as follows:

A modification was made to the approximately 50 Gomco Drainage Pumps. This included the installation of an isolation transformer, fuse and valve adaptor to improve the electrical safety and ease of maintenance of this equipment.

A volumetric device was constructed for the Physiotherapy Department to enable easy and accurate measurement of the volumes of patients' hands.

An extensive investigation was carried out on the shock hazard from electrosurgical units. This investigation singled out several causes of shocks and led to initiating an expanded test procedure for these instruments.

A special 24-inch long esophageal hypodermic needle was constructed to treat a patient suffering from oesophageal varicosis. The procedure was successful and has been used several times during the past year.

In addition to the above, four groups of engineering students at the Technical University of Nova Scotia completed the following projects relating to their project course: "Oxygen Concentrator Alarm System", "Medical Devices Alarm System", "Auxiliary Monitor Alarm System for the Medical Intensive Care Unit", and "Electrosurgery Return Electrode Temperature Sensing". Of these four projects, the first two are currently being actively pursued for possible implementation.

In the area of routine maintenance and repair, the Department performed 1,480 repairs, 1,710 routine safety and performance inspections and 517 inspections of new instruments and equipment during the year. This represented an approximate 36 per cent increase in the levels of activity over the previous year.

CHAPLAINCY SERVICES DEPARTMENT

The Chaplaincy Services Department is composed of Chaplains from four major Christian denominations: Roman Catholic, Anglican, United Church of Canada and Baptist. There were a total of eight Chaplains serving in 1982/83; three Roman Catholic, two Anglican, two United and one Baptist. Each Chaplain was employed by his or her own denomination. Coherence and a mutual sense of ministry were maintained by the Chaplains working out of the same office, sharing common concerns and dealing with mutual problems pertaining to the Department. Approximately 80 per cent of the patient population is served by the four denominations represented. Of the remaining 20 per cent many are served by several associated Chaplains officially designated by their denominations as Hospital workers.

One of our four Chaplains is an Acting Supervisor with the Canadian Association of Pastoral Education. In cooperation with the Hospital, he conducted a three month program in Clinical Pastoral Education with five students.

A brochure was published in 1982/83 to introduce new patients to the services of the Department and provide some appropriate devotional material.

DEPARTMENT OF DIAGNOSTIC RADIOLOGY

Administrative

The Department continues to perform the largest number of radiological examinations per hospital unit in the country - 172,883 examinations were performed on 123,914 patients. This represents only a very minimal increase in total examinations, but there continues to be an increase in the number of

more complicated and time-consuming types of examinations.

The Technical Training School had a total of 15 junior and senior students with all six senior students successfully completing their course. Nuclear Medicine had a total of eight junior and senior students with four seniors graduating.

All three senior residents in the Radiology program successfully passed their Royal College examinations, extending to five years a 100 per cent pass rate for this Department.

The Department has expanded into the new Dickson Building Ambulatory Care Center. New equipment included a fluoroscopic unit and two automated chest units, with the remainder of equipment being transferred from the Diagnostic Center and the West Wing of the Victoria Building.

The Quality Assurance Committee continued programs to enhance radiation safety and standardization. One new technical position has been established in Nuclear Medicine in an attempt to cope with the increasing workload, particularly for cardiac nuclear medicine. Some additional computer equipment has also been purchased for this Department. A new remote G.I. fluoroscopic unit and a new real time ultrasound unit have also been purchased.

DEPARTMENT OF DIETETICS

This year saw the final printing and distribution of the V.G. Hospital Diet Manual for use in all health care institutions within the province. The patient menu was revised to coincide with diet manual changes by a committee of food service and clinical dietetic representatives of the Department. The new menu will contain more variety of food choices for therapeutic diets to reinforce the concept that special diets do not have to be monotonous.

A computer system for the nutrient analysis of menus, daily diet regimes and recipes was introduced and generally accepted.

Administrative

Over 2,230,000 meals were served throughout the year. Approximately 736,000 of these were patient meals. Some 1,500,000 customers used the cafeterias, generating an approximate two million dollar revenue.

A total of 4,518 patients were referred to clinical dietitians for consultant purposes, and 1,711 patients were taught special diets or counselled in

nutrition related adjustments to lifestyle. The patient profile has shown an average number of patients on modified diets or at nutritional risk is 46.8 per cent of total patients at any one time.

The Ambulatory Care Center Nutrition Counselling services saw a total of 2,143 patients in the Nutrition Clinic. The Diabetes Education Center dietitian saw 1,760 patients. The Nutrition counselling service continues to provide community support through talks to various interest groups, work with voluntary agencies, media interviews and response to public inquiries.

Four dietary employees were in training at N.S.I.T. for the Food Service Supervisor Course. In addition, approximately ten students from N.S.I.T. received contact training at the Victoria General.

Ten dietetic interns graduated from the internship program within the past year.

The Dietary Department library was updated to meet the Canadian Dietetic Internship Accreditation Standards by the addition of twenty new volumes or new editions of books.

A new orientation booklet for dietary staff and a slide tape series for the training of new dietary aides were developed.

EMERGENCY DEPARTMENT

Patients Treated	39,978 (2.8 per cent decrease from last year)
Patients Admitted to V.G.H.	5,989 (1.4 per cent decrease from last year)
Patients Triaged to Camp Hill Hospital	561
Patients Triaged to other Metro Hospitals	693
Total Patients Admitted to Hospitals	7,243 (or 18.1 per cent)
Ambulance Calls	Emergency 2,763 Transfers 3,056 5,819 Total

Triage in effect by R.N.: 12 hours daily; 0900 - 2100 Hours.

Emergency Planning Committee formed June 29, 1982.

DEPARTMENT OF GYNECOLOGY

A major 20 year review of management of carcinoma of the cervix will shortly be published in the Nova Scotia Medical Bulletin. The Atlantic Trophoblast Tumor Registry continues to function and collect data. Information from a regular Colposcopy Clinic, together with information from other Colposcopy Clinics in the province, along with Cytology Registry of Nova Scotia is being coordinated.

The Colposcopy Clinic, up to now held once a week in the Tumor Clinic area, will revert totally to the Department of Gynecology in the Dickson Building Ambulatory Care Center and it is anticipated that twice weekly clinics will be held.

General tumor work of this Department continues to form part of the overall program of the Nova Scotia Cancer Treatment and Research Foundation and maintains close collaboration with the Department of Radiation Oncology.

In the reconstruction program. The Termination of Pregnancy Unit will be housed as a self contained unit in 5 Victoria with access from the Ambulatory Care Center.

HEALTH SCIENCES LIBRARY

Administrative

Collection Development

New Acquisitions - Books and Audiovisual Materials

Health Sciences Library - 230	Departments - 642

Subscriptions

Health Sciences Library - 183	Departments - 381

Information Services

Information	635
Reference	24
Literature	196

Document Delivery

The number of items borrowed from other libraries (interlibrary loans) was 1,371 (an average of 114/month) revealling a marked trend toward resource sharing. Most of the demand for interlibrary loans comes from computer

literature searches where availability is secondary to applicability. The V.G. loaned 77 items to other libraries.

MANAGEMENT ENGINEERING

Administrative

By the end of the first year of operation, five staff had been recruited with skills covering data processing, method study, and industrial engineering disciplines. This staffing level provided 897 man-days of direct work applied to 46 projects, of which 23 had been completed by the year end. These projects encompassed a wide range of services including: new product evaluation, organization reviews, computer systems, and word processing.

Cost benefits derived from this work were estimated to save operating expenses equivalent to 97 per cent of the Department's salary budget.

Scientific

The Hospital/Medical Information System (HMIS) planning study, completed in 1982, has been nationally recognized as a major accomplishment. It has been the topic of two presentations given at national conferences of data processing and medical records professionals. The implementation of this plan was further progressed in 1982/83 by the specification of a support system for Ambulatory Care and invitation of bids for this work.

Among the new technologies introduced to the Hospital were facsimile communication, word processing and computer-based solutions to operational and statistical problems.

MATERIEL SUPPORT SERVICES

The realignment of the former Standards Committee for Supplies into the existing Evaluation and Standardization of Products Committee, with three sub-committees, has provided improved control of supplies and equipment being used within the Hospital.

All elements of Materiel Support operated within budget limitations except in the Laundry where inventory shrinkage occurred.

Stock-taking

Stock-taking of all inventories under control of Materiel Support showed a new surplus of $458.38. This figure represents .02 per cent error factor,

based on the value of inventory held at the end of the fiscal year, or .006 per cent of the value of inventory processed throughout the year.

Inventory Control

The total amount expended for the procurement of equipment and supplies was $24,460,600.00, no change from the previous year.

The number of line items held in inventory decreased from 4,352 to 4,263.

The value of inventory, however, increased by 29 per cent to $2,602,969.82. This increase can be attributed to a combination of price increases and reduction in usage by departments.

The availability of items improved, however, from 93 per cent in 1981/82 to 96 per cent in 1982/83.

Stores

In April 1982, responsibility for Pharmacy Stores was transferred from Materiel Support to Pharmacy.

Capital Equipment and Repair

Fewer purchases of office furniture and equipment resulted in an increase in the repair workload as more extensive repair and restoration is now being carried out.

Porter Escort Service

During the year the following major projects were carried out: implementation of an expanded in-service program for all staff which included the establishment of positions for two Training Officers, and doorman service to provide assistance to patients and visitors at the main entrances to the Centennial and Dickson Buildings.

Records indicate an increase in calls answered of 17 per cent in Admitting and 22 per cent in Medical Records.

MEDICAL RECORDS DEPARTMENT

In 1982/83 the Medical Records Department received and processed the records of:

Inpatients	19,772
Outpatients	43,206
Day Patients	10,618
Emergency Patients	39,978
	113,574

The records of patients were requisitioned and sent to the following areas:

Inpatients	7,604
Outpatients	50,129
Tumor Clinic	1,046
Emergency	7,527
Doctors' Offices	1,720
Other	1,864
	69,890

There were 3,985 requests (by mail, phone and in person) for patient information from other health care facilities, doctors' offices, government agencies, etc.

Discharge Summaries and operative reports were transcribed, copied, mailed and filed:

	Reports	Units
Discharge Summaries	19,432	126,710
Operative Reports	11,518	37,910
	30,950	164,620

Letters to referring doctors and chart notes were transcribed, mailed and filed:

	Reports	Lines
Letters	8,130	453,300
Notes	16,968	453,300
Other		9,369
TOTAL	25,098	915,969

There were 51 research projects involving 13,075 records and 41 requests for statistical information.

There were 11 patient care appraisals carried out at the request of the Clinical Appraisal Committee.

There were 15 records produced as a result of summons or subpoenas. There were eight search warrants served. One record was produced for Notice of Examination (patient's authorization required) and one record produced under the Hospitals Act, Chapter 247, RSNS 1967 Section 63 (5) (e).

Conversion to terminal digit filing was begun November 17, 1982 and was completed December 31, 1983. The conversion involved 300,000 records. Eleven casual staff were hired to assist.

Because there was insufficient shelving to file 300,000 records in the Ambulatory Care Center, approximately 3,000,000 documents had to be microfilmed. This involved Department of Government Services staff and cameras, V.G. casual staff and a Service Bureau, on site.

The final draft policy on confidentiality and the release of information as well as the report and recommendations of the Task Force on Patient Index was submitted to Management Committee.

DEPARTMENT OF MEDICINE

The activities of the Department of Medicine are performed by the various specialty services that together encompass all of the disciplines within the specialty of Internal Medicine.

Cardiology Service

Administrative

The Hemodynamic Unit performed 1,931 diagnostic and therapeutic procedures, an increase of 15 per cent over the previous year. **The Echocardiographic Unit** studied 3,669 patients, an increase of 38 per cent. This unit has acquired a "state of the art" system that has significantly added to the technical capabilities of the laboratory. **The Exercise Stress Testing** performed studies on 1,996 patients, an increase of 33 per cent. However, because of increased efficiency in the unit, the waiting period for this procedure has been significantly decreased. **The Electrocardiographic Unit** performed over 32,000 electrocardiograms, an increase of three per cent and expects a further increase in demand to result from the new facilities in the Dickson Building. Fifteen hundred patients underwent ambulatory cardiac rhythm monitoring, an increase of 54 per cent. New and sophisticated equipment has allowed this increased volume to be handled more efficiently. **The Nuclear Cardiology Unit** performed 1,233 clinical studies, an increase of 20 per cent.

The **Patient Care Units** (Coronary Care and Ward 4B) handle major

cardiac problems from all parts of the Maritimes and elsewhere; many of the patients being transferred from other Intensive Care Units around the region. Increased efficiency has allowed a greater number of patients to be treated using the same number of beds.

Dermatology Service

Administrative

During the year, 207 patients were admitted to the Dermatology Service. The Dermatology Outpatient Department handled 2,269 patients, and 2,016 treatments were given to 158 outpatients. The increasing demand for outpatient treatment has outstripped the facilities, resulting in a waiting list of four to six months. The recent opening of the Dickson Building will allow this service to double the number of patients that can be treated on an ambulatory basis.

Scientific and Educational

Several years of planning has culminated in the establishment of a residency training program in Dermatology, designed to meet the clinical needs of patients in the Maritime Region. The program is operated jointly between Dalhousie University and the University of Ottawa, and has two specialty residents currently enrolled.

Endocrinology and Metabolism Service

Administrative

A major thrust of this service is the investigation and treatment of patients with endocrine and metabolic diseases on an ambulatory basis. There were 2,517 visits to the Diabetes Education Center, 300 to the Endocrine Clinic and 496 to the Diabetes-Lipid Clinic. The Ambulatory Testing Unit performed endocrine investigations on 60 outpatients.

Scientific and Educational

Members of the division are involved in externally funded clinical research projects totalling approximately $200,000.

Gastroenterology Service

Administrative

During the year under review, 466 patients were admitted to this service. The **Endoscopy/G.I. Function Unit** performed 2,828 procedures, an increase of 15 per cent over the previous year.

General Medicine Service

Administrative

Planning was undertaken to consolidate the facilities of the General Medical Service in a single geographic area.. The service admitted 1,084 patients, the vast majority being admitted from the Emergency Department.

Infectious Disease Service

Administrative

The service functions on a consultative basis, having no beds directly allocated to it. During the year under review, 744 patients were seen and managed in consultation.

Nephrology Service

Administrative

The Nephrology Service, in addition to its inpatient and ambulatory patient services, is responsible for the **Renal Dialysis Program.** During the year 3,794 chronic hemodialyses and 174 acute hemodialyses were performed. In the ongoing attempt to make patients less dependent on the hospital services, six patients were trained during the year to perform their dialysis procedures at home, and there were 49 visits by other patients on the **Home Dialysis Program** in addition to 37 visits by the dialysis staff to the homes of patients on this program. The program of **Chronic Ambulatory Peritoneal Dialysis (CAPD)** continues to grow; 17 patients were trained in this therapeutic modality during the year.

The **Kidney Transplantation Program** is run in conjunction with the Department of Surgery; there were 800 patient visits to the Transplantation Clinic.

Scientific and Educational

The members of the service were involved in providing training courses for nurses and physicians throughout the region in appropriate management of patients with kidney disease.

Plans are almost complete for the establishment of a **Hyperbaric Medicine Unit** that will add to the therapeutic capabilities of the Hospital.

Rheumatology Service

Administrative

The group has attracted more than $200,000 in research grants in addition to salary support from the Arthritis Society and from the Dalhousie Medical Research Foundation.

Scientific and Educational

Members of the service established an active research unit in the Halifax Civic Hospital.

DEPARTMENT OF MICROBIOLOGY

Central Public Health Laboratory

In Clinical Bacteriology updating methodology changes have been made in urine cultures, bacterial identification and antibiotic sensitivity. The Enteric Laboratory, although having no increases in specimens, experienced a major shift in emphasis in agents causing diarrheal disease. In addition, this laboratory assumed responsibility for Biotyping. The Public Health Laboratory, including Mycology and Respiratory Bacteriology, as well as assuming responsibility for antibiotic levels, experienced a major increase in demand during the year. Immunology became responsible for rubella screening while Virology undertook the care of the Electron Microscopy Laboratory.

Although some areas of rapid technological advances have experienced increases in specimens (eg. Immunology up 22 percent) overall specimen load has been reduced by 6.6 per cent. This reduction can be attributed to a successful program of evaluation of specimens by staff and the education of submitting physicians in the Hospital and elsewhere by Medical Microbiologists and Infectious disease Physicians. The outcome in terms of work units has been a modest increase of 2.3 per cent instead of the usual

annual increase of 10 to 12 per cent.

Research and Development has been vigorously pursued resulting in the development of several ELISA tests and kit evaluations.

Table 1
GENERAL STATISTICS OF MICROBIOLOGY DEPARTMENT
TOTAL SPECIMENS

	1981/82	1982/83	Percentage
Clinical Bacteriology	66,696	67,105	+0.6
Clinical Immunology	51,073	62,548	+22.4
Enteric Bacteriology	4,993	3,920	−21.5
Parasitology	3,826	3,877	+1.3
G.C.	22,146	22,896	+3.4
Respiratory Bacteriology	12,475	14,323	+14.8
Mycology	4,750	5,293	+11.4
Sanitary Bacteriology	33,955	25,286	−25.5
Virology	27,657	6,928	−75.0
Electron Microscopy	1,798	2,161	+20.2
TOTAL	229,369	214,337	−6.6

Table 2
GENERAL STATISTICS OF MICROBIOLOGY DEPARTMENT
TOTAL UNITS

	1981/82	1982/83	Percentage
Clinical Bacteriology	2,389,894	2,374,512	−0.6
Clinical Immunology	759,387	1,082,847	+42.6
Enteric Bacteriology	323,268	304,748	−5.7
Parasitology	154,180	174,060	+12.9
G.C.	268,531	284,394	+5.9
Respiratory Bacteriology	626,081	514,734	−17.8
Mycology	215,852	261,280	+21.0
Sanitary Bacteriology	1,063,560	972,297	−8.5
Virology	1,379,254	1,362,157	−1.2
Electron Microscopy	151,972	168,002	+10.5
TOTAL	7,331,980	7,499,031	+2.3

Neurology Service

Administrative

The 641 patients admitted to the Neurology Service represent a 20 per cent increase over the previous year. Consultations provided by the Neurology Service increased by 83 per cent over the corresponding period. The Neurology Service is responsible for the provision of electromyography; 1,221 examinations were performed, an increase of 19 per cent. There were 2,138 electroencephalograms performed. New EMG and EEG equipment was obtained for the expanded facilities in the new Dickson Building.

Respirology Service

Administrative

The **Beckwith Lung Unit** performed pulmonary function studies on 1,890 patients, an increase of 29 per cent. Blood gas estimation increased by 25 per cent, and in the various services provided by the **Respiratory Technology Service**, increases ranged from 26 per cent to 64 per cent.

An **Adult Cystic Fibrosis Clinic** was established in the current year.

SECTION OF CLINICAL BACTERIOLOGY

In order to unify clinical specimens to a more functional unit, Clinical Bacteriology has taken over the handling of routine sputum screening and culture.

Methodology has been devised to reduce the time to report 50-60 per cent of positive urine cultures from 48 hours to 18 hours.

Improvements in bacterial identification have occurred in two directions. Unusual afermentative bacteria are now identified by a schema demonstrated to be concise and accurate and have been under a cooperative study with the Laboratory Center for Disease Control, Ottawa.

SECTION OF CLINICAL IMMUNOLOGY

The Section added the rubella immunity screening program, which was transferred from virology, using the Single Radial Hemolysis (SRH) method as the routine service. This has resulted in a 22.4 per cent increase in the number of specimens processed over the past year in the Immunology Division.

Complement Fixation Test (CFT) continued to maintain a high profile among the serological tests. The number of specimens for CFT was up by 21.6 per cent over the past year. The test helped to diagnose an outbreak of Q fever in Shelburne, Nova Scotia, in June. It also alerted the arrival of the Influenza A season in December.

The Division participated in two serological surveys at the request of the provincial Department of Health. Three hundred sera were received for the testing of Hepatitis B serological markers, including the core antibody, surface antigen and antibody to the surface antigen. The purpse of the survey was to select candidates for Hepatitis B vaccine in one institution. The other survey involved the screening of 1,609 sera for rubella immune status. These sera were taken from 11-year-old children who received the rubella vaccine five years ago.

SECTION OF ENTERIC BACTERIOLOGY

This section comprises the separate laboratories for Enteric Bacteriology, Parasitology, and Gonococcal Bacteriology. During 1982/83 the total specimens submitted to this Section has remained at a steady level - 30,828 compared with 30,968 in 1981/82, ie. a difference of 0.5 per cent; units increased by 2.8 per cent, due to improvements in techniques for slide identification of parasites and to takeover of biotyping by this Section during the year.

Isolates of **Campylobacter jejuni** from patients with acute enteritis continue to increase, as do also the isolates of **Yersinia enterocolitica.** Both of these organisms have shown a small but steady increase during the past four years, an increase which appears to be a true one rather than attributable to improved specimens or techniques for isolation. There were very few Shigella isolates this year. The **Listeria monocytogenes** project finished in the early weeks of the new year. **Aeromonas hydrophila** is now recognized as an important enteric pathogen, especially in young children, but culture and identification techniques are problematic. We have carried out an initial project to enable us to look for this organism in diarrheal diseases, and the methodology should be in routine use shortly.

Two serotypes of Salmonella were "firsts" for Nova Scotia - **S. norwich** from a patient recently returned from Ontario, and **S. ohio** from a food handler in a local hotel. Also, for the first time in over 12 years, a lactose-positive Salmonella was referred to us. This was **S. newport** and was isolated from a urine specimen from the Halifax Infirmary Laboratory and identification was confirmed at CDC, Atlanta.

SECTION OF PUBLIC HEALTH BACTERIOLOGY

Respiratory Bacteriology

This year saw an overall increase of 14.8 per cent in the total number of specimens submitted for examination. During the year some changes took place in this section. The non-tuberculous respiratory bacteriology was transferred to the Section of Clinical Bacteriology and, in return, this section received the EMIT equipment for the automated estimation of aminoglycoside levels. It is these latter estimations which have, in large measure, accounted for the overall increase in the number of specimens submitted.

Mycology

There was an overall increase of 11.4 per cent in the number of specimens submitted for examinations, reflecting an increase of 21 per cent in total units.

Sanitary Bacteriology

Water Analysis

This year showed a decrease of 11.2 per cent in the number of specimens submitted for examination. This reflected a drop in the number of requests for coliform estimations in water generally.

Dairy and Food Products Bacteriology

There was a considerable decrease in the number of requests for coliform determinations in milk and for phosphatase estimations. Food microbiology showed a substantial increase during the year. The studies, commenced last year, relating to the Listeriosis outbreak, were continued throughout this year resulting in a substantial increase in units.

SECTION OF VIROLOGY

The year 1982/83 brought with it two major changes in Virology - the transfer of routine rubella serology to Immunology and the reverse transfer of the Electron Microscopy unit (E.M.) to Virology. As a consequence of these changes, there was a marked decrease in the number of specimens received and tests performed.

In April, 1982, a modified protocol for isolation of Respiratory Syncytial Virus (RSV) was adopted. This involved a combination of tissue culture

and fluorescent antibody staining, and resulted in greater sensitivity, equivalent specificity and faster reporting than the previous method.

Once again, **Chlamydia trachomatis** was the most commmon isolate (34.9 per cent), with herpes simplex 1 (22.1 per cent) and herpes simplex 2 (19.6 per cent), the second and third most prevalent organisms. A study was carried out in conjunction with the health services of one of the local universities regarding the prevalence of **Chlamydia tracomatis** in college-age women without frank symptomatology.

Media Preparation (Laboratory)

This section was very busy during the past year, particularly through involvement in the preparation and testing a number of specialized media for the isolation of Listeria.

The workload has remained fairly constant at 452,608 units.

Research and Development

During the year 1982/83 the Method Development Laboratory was involved in the following:

1. An ELISA technique was developed for the detection of Q-fever antigen and Q-fever antibody. Approximately 100 sera were tested for antibody levels and 25 specimens (throat washing, urine, etc.) were assayed for the presence of Q-fever antigen. Further testing will be carried out prior to implementing the test on a routine basis.

2. An ELISA Method was also tested for the detection of antibody for amoebiasis. This technique can now be used on a routine basis.

3. Preliminary work has been done to develop methodologies for plasmid profiling by means of the Restriction Endonuclease testing. It is anticipated that this technique will be fully developed early next year.

4. Kits for the detection of pyrogens have been evaluated and found satisfactory. The Limulus Amoebocyte Lysate Assay will be available for testing products as circumstances warrant.

DEPARTMENT OF NEUROSURGERY

Admissions increased by 59 for a total of 1,665 and procedures increased by 78 to 1,507.

The Residency Program has remained active,, although concern has been raised by a reduction in funded positions for Neurosurgery residents.

The Neurosurgical Nursing Staff have remained active in the Canadian Neurological Neurosurgical Nurses Association. They have an active local chapter and have continued their program in postgraduate educational nursing in regard to neurosurgical problems.

The step-down team approach to nursing care is working satisfactorily.

The acquisition of the CUSA (Cavitron Ultrasonic Surgical Aspirator) has led to improved surgical results, particularly in the area of intramedullary spinal cord tumors, meningiomas and acoustic neuromas.

The device, which fragments tumors piror to aspiration, has given neurosurgeons the ability to remove lesions completely.

The Department has continued to support research into herpes encephalitis, providing the care for the seriously ill patients who are presently placed on a randomized drug scheme.

SCHOOL OF NURSING

This School is in the initial stages of developing its own workload measure. In preparation for this, a workload analysis of the instructor job responsibilities was implemented in September, 1982. The projected final stage of the computer analysis will be in September, 1983. This data will provide the basis for the development of the actual formula for workload measures. The outcome should be the evolution of the first Canadian workload measure for faculty of hospital diploma schools.

The second class of 150 (146 females, 4 males) students enrolled in September, 1982. The total student body numbered 288, representing a 30 per cent increase in enrollment as requested by the Department of Health.

Ninety-six students graduated in June, 1982, and then successfully completed the final portion of the program in August, 1982. The attrition rate for this class was 19.32 per cent, and the pass rate for National Registration Examinations was 96.6 per cent. A questionnaire was completed five months following graduation, by the Victoria General Hospital Head Nurses supervising these graduates. One hundred per cent returns indicated that 91.1 per cent of the new graduates were satisfactorily meeting the expectations.

During the summer of 1982. 24 students received their clinical experience

in Care of the Mother and Infant at the Colchester Hospital in Truro. Post evaluation of this experience was very positive.

In response to the changing needs of society, this School has increased the gerontology component of the curriculum. To assist students with the clinical application of this knowledge, negotiations have been initiated with several nursing homes in Halifax.

NURSING DIVISION

The orientation program for new employees of all categories in the Nursing Division included 246 this year (208 R.N.'s), and 632 last year (480 R.N.'s). As well as having an impact on the quality of programs and services offered, the better availability of personnel resulted in a changed strategy over summer bed utilization. Instead of deliberate bed closures, an approach to control the occupancy at a steady rate across the summer, which would still meet the total demand, was realized.

Training and development have been given high priority. A program was planned for the development of senior Nursing managers. The program for potential Head Nurses was continued and a series of skillshops planned for present Head Nurses management development.

Revisions were made to improve the quality of program and services. These revisions ranged from construction activities in electrical and gas valve changes to a review of stated standards and procedures and activities to meet these standards, such as charting practices within the institution.

Another example of activities to ensure quality care to patients was the attention paid to the Cardiac Arrest Team and ensuring that a specially designated and qualified nurse be present at all called arrests.

The Continuing Education staff have divided their operation into the specific areas of Staff Training and Development Management Training and Development, Orientation, Outside Information and Clinical Experience for students and Post R.N. Short Courses.

Observation or learning experiences were arranged for other Hospital personnel in a variety of specialized areas in the V.G.. Eighty other requests were received for assistance from the Nursing Division for such things as copies of our Standard Care Plans, Policies and Procedures. In addition, 56 requests were received for resource personnel to act as speakers and conference facilitators. Among the topics for which V.G. staff are recognized as experts are: Transplant Nursing, Cardiac Nursing, Nursing Research and

Nursing of Burn Patients.

Increased emphasis in nursing and health care in general is being placed on Quality Assurance. In June, 1982, Nursing Division implemented a research-based quality monitoring program. This systematically reviews 10 per cent of all patients on each General Nursing Unit, the Recovery Room, Intensive Cares and Emergency Department. The review includes observations made by specially trained Head Nurses, who collect their data from patient interviews, patient's records, observation on the Nursing Unit, and asking questions of Nursing staff.

Special attention has been placed on patient education and the use of modern technology to assist this important Nursing function. In June of 1982, patient education video programming was implemented on Channel 13 and could be accessed on patient's bedside steri-systems, in the Admitting Department and in all patient solaria. V.G. Nursing staff, in collaboration with others, produced two video education programs. A research project was conducted on patient compliance with instructions given to them around the time of their total hip replacement surgery. The Hectar Project looked at the effects of introducing a special Patient Education Program into the routine of Nursing care on heart nursing units.

Nursing Research projects with various levels of sophistication have been implemented, including the development of standard procedures for mouth care for patients receiving chemotherapy. Two specific roles for nursing were demonstrated in the position of Clinical Nurse Specialist and Primary Care Nurse. Both these roles are being evaluated.

OCCUPATIONAL HEALTH DEPARTMENT

Early in the year the Department cooperated with Dalhousie School of Physiotherapy in a retrospective study of employee back injuries.

A study was conducted of "Accidental Innoculation from Unknown Sources".

A major development in policy and program resulted in pre-placement Health Assessment Policy/Procedure approved and implemented in February, 1982. Several other policies were revised and/or developed including Chest X-ray, Immunization, Hepatitis Screening, VDT User health, Occupational Health Standing Orders and Cytotoxin Drug Handling.

Total visits/contacts to the Occupational Health Department increased by 1,133 or 8.9 per cent. Other significant decreases were for illness visits

(25 per cent), immunization (nine per cent), and individual health advice (35 per cent).

There were significant increases for health assessment (31 per cent), individual counselling (33 per cent) and health clearance for work (six per cent).

In the first complete year of operation, the Pre-placement health Assessment Program saw a total of 850 new employees and necessitated 95, or 11 per cent, referrals for medical examination. Little change was noted in the presenting illness pattern with the exception of an increase in G.I. problems.

In the Accident Management Program significant decreases were noted in total number reported by 3.5 per cent, and in direct cost percentage by 1.5 per cent. Although small percentages, these represent a saving of an estimated 200 working days and several thousand dollars.

There was a slight reduction overall in reported back injuries and a significant decrease in accidental inoculations and minor burns. Efforts to reduce these accidents have thus begun to show positive effects.

DEPARTMENT OF ORAL SURGERY

The total number of patients treated by the Department was 5,006 compared with 4,971 in 1981/82.

The total number of patients admitted as inpatients was 317 compared with 250 in 1981/82.

The total number of services rendered was 13,422 compared with 13,712 in 1981/82.

The waiting time for inpatient admission to Hospital is 19.8 weeks.

The waiting time for Day patient surgery with general anaesthesia is five months.

The surgical service available to patients, especially those with dentofacial deformities, continues to increase in complexity. To diagnose the problem successfully and obtain predictable stable results involves ever increasingly sophisticated analyses. This requirement involves much more presurgical and post-surgical involvement of staff at all levels.

OUTPATIENT DEPARTMENT (AMBULATORY CARE CENTRE)

During this past year the Outpatient Department continued to be accommodated in temporary quarters in the Nurses Residence, the Pavilion and the Dr. D.J. Mackenzie Building. In anticipation that many adjustments would occur with the move to the Dickson Building Ambulatory Care Centre in April, 1983, no major changes were made in any of the service programs during the year.

Patient visits to the department numbered 43,206, an increase of approximately 8.5 per cent over the previous year, this increase being very uniform throughout the clinics.

There was a great deal of preparation in determining an appropriate computerized system for the Ambulatory Care Centre during the year. Initially, a tender package was developed primarily for the Ambulatory Care Centre, to be on stream by the anticipated opening, April 1983. This direction was modified somewhat in that the system is to be compatible with total Hospital information systems.

Meetings were continually held with the clinical departmental and division heads to determine and refine protocols and procedures, as well as scheduling and operational formats that would be in effect in the new facilities.

The role of Ambulatory Nursing was also continually reviewed during the year with attention being paid to restructuring and amalgamating the outpatient and inpatient component of clinical programs. In future, the department will no longer be referred to as the Outpatient Department, but will be called the Ambulatory Care Centre.

DEPARTMENT OF PATHOLOGY

The Department of Pathology comprises three major service Divisions: Anatomical Pathology, Clinical Chemistry, and Hematology; plus small Cytopathology and Administration sections. Together with the Department of Microbiology, with which it shares the premises of the Dr. D.J. Mackenzie Building, the Department functions as a central provincial laboratory facility as well as a major hospital laboratory.

Department of Pathology - Workload Summary

	Procedures	Units
Anatomical Pathology	94,384	5,680,459
Hematology	873,518	6,654,791
Clinical Chemistry	2,620,812	11,790,199
	3,588,714	24,125,449

DIVISION OF ANATOMICAL PATHOLOGY

Workload of the Division

Total Surgical Pathology		19,627 cases
Consults from Regional Laboratories		992 cases
Frozen Sections		810 cases
Total Cytopathology		72,562 cases
Total Autopsies		393 cases
TOTAL WORKLOAD IN S.C.UNITS	(Histopathology)	4,237,594 units
	(Cytopathology)	1,442,865 units
	TOTAL	5,580,459 units

Method Development

The following methods were developed and instituted:

1. Testing and implementing of new antisera for the immunoperoxidase technique and the acquiring of controls for each of the following:

   - GFAP - glial fibrillary acidic protein
   - Calcitonin
   - Factor VIII
   - Keratin
   - Estradiol
   - Hepatitis B Surface Antigen
   - Insulin
   - Growth Hormone
   - Prolactin
   - Comparison of Dako and Immulok kits for GFAP, Calcitonin and Factor VIII. (Dako found to give superior results)
   - Testing of Immulod stainplate
   - Q fever both as a fluorescent technique and immunoperoxidase
   - Mycoplasm pneumonia

2. Dithiothreitol-Schmorl for Cystine-containing proteins.
3. Baker's Acid Hematein for phospholipids Schultz for cholesterol. Nile Blue Sulfate for Neutral Fats and Fatty Acids. Menschik's Method for Phospholipids.
4. Staining of fine needle aspirates of kidney.
5. Congo Blue - a rapid stain for elastic fibres.

DIVISION OF HEMATOLOGY

Scientific

Workload Statistics

Divisional Totals:	Tests	873,518 (4.3 per cent increase)
	Units	6,654,791

Sectional Totals:

	Units	Percentage
Blood Bank	2,528,912	38.0
Microscopy	2,247,775	18.8
General Hematology	1,168,481	17.6
Coagulation	805,332	12.1
Isotopes	394,122	5.9
Immunology	341,566	5.1
Cellular Investigations	168,603	2.5

Agencies Served:

V.G. Hospital Inpatients	2,959,959	56.6
V.G. Hospital Outpatients	1,262,884	24.1
Other Hospitals	1,008,177	19.3

New Services

New Methods:

Immunofluorescent detection of lymphocyte surface immunoglobulin
Immunofluorescence cell surface staining (study of cell surface antigens using monoclonal antibodies)
Peroxidase at E.M. level - Anderson technique

Bethesda unit method for Factor VIII Inhibitors
CH100
Immunofixation
Fibrinogen (antigenic)
Platelet - associated IgG
Factor VIII binding to platelets

Modification to Methods:

Addition of mono-specific anti-human reagents and of papain to antibody investigation techniques
Non-specific esterase - sodium fluoride inhibition
Immunoglobulins, C3 and C4 by nephelometry
IgE by modified BIO-RAD kit
Buffered citrate anticoagulant for all platelet and coagulations studies
Improved platelet washing procedure using Kreb's buffer pH 7.3 for last wash.

Instrument Evaluation:

Sorvall CW-2
Wang Blood Bank computer system
Lymphocyte count from Coulter S Plus II
Olympus multi-viewing microscope
Microscopes for fluorescence microscopy:
Wild - Leitz
Nikon
Olympus
American Optical
Stereoscopic microscope - Nikon
Zeiss microscope, camera and television
Beckman Auto ICS
Chrono-log platelet aggregometer
Bio Data PAP3 aggregometer
Turner spectrofluormeter.

Reagent Evaluation:

BRL TdT kit
RIA kits:
Vitamin B12 - RIA Products
Corning
Amersham
BIO-RAD, Quanta Phase I
IgE - TANDEM Hybritek

Bio Data VWF assay kit
Lumac kit for ATP/ADP
Purified firely reagent - Sigma
Bio Data Beta Pak for platelet aggregation.

DIVISION OF CLINICAL CHEMISTRY
A Breakdown of Procedures and Units Done During April 1982 - March, 1983

	Procedures	Units
V.G.H. Blood Collection	124,380	995,040
Routine Chemistry	2,226,644	6,177,812
Endocrinology	127,606	2,710,676
Toxicology	26,928	541,894
Environmental Chemistry	115,254	1,364,777
GRAND TOTAL	2,620,812	11,790,199

DEPARTMENT OF PHARMACEUTICAL SERVICES

A review of cefotaxime (CLAFORAN) utilization was initiated. A protocol for the review of intravenous metronidazole (FLAGYL) was prepared and will be implemented in the fall of 1983.

Thirty-three patients receiving 36 courses of cefoxitin mefoxin were retrospectively studied to assess the appropriateness of antibiotic therapy. At this time, cefoxitin use was unrestricted and sensitivities to the drug were not reported. The results demonstrate the need for the development of formulary and educational policies in this hospital to ensure the appropriate use of cefoxitin.

An education program on anti-inflammatory agents was designed and implemented for a nursing unit where patients self-medicate. During the study, the effect of a pharmacist on patients' and nurses' knowledge of non-steroidal anti-inflammatory agents was tested.

Twenty patient drug information sheets were developed for use in counselling patients on their anti-inflammatory drugs. Group sessions concerning the proper administration of medications were organized for presentation to both groups of patients.

Twenty-four arthritic patients participated in the study; 17 in the treatment group and seven in the control group. Twelve nurses entered the study; seven in the treatment group and five in the control group.

A nursing manual on anti-arthritic medications was compiled during the project.

An opinion questionnaire to nurses in the treatment group reflected that they had benefited from the residency project. They identified a number of services they felt should be continued. These included drug information, patient education, assistance with problems concerning ward stock or drug orders from the dispensary, and nursing education.

Administrative

In addition to the activities summarized, the Department intitiated a number of projects.

Ward Stock Review 1982

The 1982 ward stock review included a review of ward stock drug use for the previous six month period, a review of prescriptions for the previous three month period, inspection and retrieval of excess/expired stock from the medication storage cupboard and development of new ward stock lists. Unfortunately, over 30 areas in the hospital remain outside this review process.

Formulary Project

A drug formulary project involved reorganization of all Pharmacy Stores and dispensary inventories. This procedure resulted in reduction of Pharmacy Stores inventories by $31,000. The second phase of the project was development and implementation of a drug formulary policy. At the same time, a review of pharmacologic-therapeutic drug categories was initiated.

Intravenous Solutions

A review of ward stocks of intravenous solutions was carried out. Inventories were reduced by $3,000 and a revised quota/preprinted requisition system introduced.

Caradiac Arrest Trays

The introduction of new, sealed cardiac arrest trays resulted in a decrease in tray usage - from an average of 60 trays/month to less than 20 trays/month. The addition of pre-loaded syringes and lidocaine intravenous solution in bags has resulted in improved efficiency.

Night Cupboard

A new night cupboard was installed, the drug list revised and a new procedure introduced. The revised procedure allows Pharmaceutical Services to follow-up each use of the night cupboard and supply the balance of prescriptions initially dispensed from the night cupboard. Use of the cupboard remains low.

Operating Room Narcotics and Controlled Drug Procedure

A revised procedure was developed for the control of narcotics and controlled drugs in the operating rooms. The new procedure will be initiated in 1983/84.

Medication Profiles

The Department initiated the use of medication profiles for inpatients receiving chemotherapy.

Parenteral Drug Therapy Manual

The Department, with the support of the Pharmacy and Therapeutics Committee, made available to all nursing units copies of a Parenteral Drug Therapy Manual.

Capital Equipment

The Department purchased an automatic tablet/capsule counting machine in 1982/83. The counter was used in packaging over 500,000 tablets/capsules.

The Department also purchased and installed two walk-in coolers to protect over $120,000 worth of refrigerated inventory. These units will improve efficiency in inventory control and reduce travelling time for departmental staff to other coolers.

The Department participated in residency rotations by Pharmacy Residents from Camp Hill Hospital and the Halifax Infirmary; in Clinical Clerkships by 10 students from the College of Pharmacy, Dalhousie University; in the Practical Training Program of the College of Pharmacy and the Nova Scotia Pharmaceutical Society; and in the training program for Non-Professional Pharmacy Personnel sponsored by the Nova Scotia Branch, Canadian Society of Hospital Pharmacists and operated by participating Halifax-Dartmouth hospitals.

PLANT ENGINEERING DEPARTMENT

There were 10,548 work orders processed during the year. This was a 15.9 per cent increase over the previous year. A total of 17,685 kilowatt hours of electrical power was used. This is an increase of 6.1 per cent and is mainly due to increased power usage in the Dickson Building. Despite the increased use of heat in the Dickson Building, the amount of heating and process steam was 2,444,849 lbs, which was down 3.8 per cent, compared with the previous year. This reduction can be attributed to fewer degree days and the installation of time controls on two boilers - an energy saving measure. The amount of water used was 211,731,000 gallons. This is 11.6 per cent greater than last year.

Major renovations were made to the 5th floor, North and West Wings, Victoria Building. The Cesium Unit was relocated and a new solarium was built in a former teaching room.

In January, work commenced on the Space Inventory Program. It is expected to be completed during the forthcoming year.

A new replacement tractor was purchased during the year.

There were numerous alterations, renovations and major repairs carried out to the physical plant. The most significant of these were: major landscaping on the Tower road and University Avenue sides of the property; modernization of a large classroom in the basement, Nurses Residence; replacement of the main shut off valves in the medical gas systems of the Centennial and Victoria Buildings; construction of a Media Preparation Facility in the West Wing, Pathology Building; and reroofing of several buildings.

DEPARTMENT OF PSYCHIATRY

There is still pressure on the inpatient unit, as well as in other inpatient units in Metro, to admit more disturbed patients because of the shortage of beds at the Nova Scotia Hospital and the partial closure of facilities at Camp Hill Hospital until construction is completed there.

The average length of stay was the same as it was for 1981/82 - 33 days. This is higher than for most general hospital psychiatric units in Canada, but it seems to be because more severely ill patients are being admitted, many of whom require extensive investigation, both psychiatric and medical. The inpatient unit on 9A continues to be the main tertiary care facility for psychiatric patients in Nova Scotia.

The division of ward care into two teams - each having two senior staff physicians, one nursing team leader, one resident, one intern and one clinical clerk - has greatly improved patient care and teaching.

The teaching program for undergraduate medical students, clinical clerks, interns and residents has continued and staff members take an active role in teaching and other activities of the Dalhousie Medical School.

With the availability of Social Services, coverage of the Pshychiatric Inpatient Service has been improved. Current functions of Social Service include preparation for discharge and arrangement for after care, including work with the family.

Occupational Therapy

Ongoing Programs - One full time occupational therapist manages the psychosocial program, with consultative services primarily to ward 9A. Program activities which have continued over the year include:

- individual assessment and treatment planning
- individual programs designed to maintain and/or improve level of function in daily living activities.
- group programs - assertiveness training
  - stress management training
- participation in community meetings, ward rounds, case conferences, team meetings, psychiatry departmental meetings, and resident/intern/clerk orientations.

New Program Developments - The following have been implemented over the past year:

- individual life skills training in time management, budgeting, homemaking skills, leisure management etc.
- individual relaxation training programs
- student clinical education - total of five occupational therapy students (8 weeks each) and 2 recreational therapy students (14 weeks).

It is now possible to do routine blood tricyclic levels, which will be very helpful in the management of depressed patients.

The Department of Psychology, now separate from the Department of Psychiatry, continues to have close liaison with it in terms of research, diagnostic and therapeutic services.

STATISTICS
DEPARTMENT OF PSYCHIATRY
April 1, 1982 to March 31, 1983

Admissions to Inpatient Unit	294
Average Length of Stay (days)	33
Consultations from Other Services	436
Consultations to Other Services	310
Number of Psychiatric Emergencies seen in V.G. Emergency Room	818
Number of Psychiatric Admissions from V.G. Emergency Room	48

DEPARTMENT OF PSYCHOLOGY

Approximately 600 Hospital staff received consultation services from Psychology on an individual or group basis regarding questions of patient management, occupational stress, program planning and evaluation, research consultation, and a host of other psychological matters.

Close to 800 patients took part in one of three group treatment programs: a support group for gynecological cancer patients, a therapeutic dance group for psychiatric patients, and a didactic group session on emotional adjustment to diabetes for outpatients attending the Diabetes Education Clinic. The bulk of our clinical services was dedicated to the assessment and treatment of individuals.

A total of 265 inpatients were seen for: a) clinical diagnostic assessments (184), b) detailed neuropsychological assessments (135), and c) a broad range of treatment services for depression, anxiety, pain management, hypertension, migraine and tension headache, obesity, marital, sexual and family dysfunction, and various acute situational reactions and stress-related disorders (280). Psychology staff logged roughly 4,000 direct clinical and consultative contacts with patients and staff of the hospital this year.

Psychology staff ahdere to a scientist-practitioner model, and efforts are being made to integrate clinical research with service delivery. Members of staff have designed research tools for identifying cancer patients who are psychologically at risk and for use in the Pain Clinic. These research tools will serve as a basis for evaluating treatment outcomes and will provide prognostic indices for use in treatment planning.

DEPARTMENT OF RADIATION ONCOLOGY

The Department of Oncology has continued to participate in the National Cancer Institute clinical Trials with an extremely heavy involvement, particularly in small cell carcinoma of the lung. Other studies address breast cancer and children's cancer.

During the year there has been an approximately 20 per cent increase in the number of patients treated because of the transfer of the facilities from the Halifax Infirmary. Despite the stable population there has been a steady increase in the interstitial implantation of gold grains in prostatic carcinoma and additionally in the therapeutic use of radioactive isotopes which has been taken over from the Department of Radiology of the Hospital.

The amalgamation of the Department of Radiation Oncology from the Halifax Infirmary took place in November of 1982 and proceeded smoothly with no loss of treatment time of patients. As a result there was an extremely heavy work-load with a limited number of machines. This has now been corrected with the addition of a 6 MeV Linear Accelerator, the first of two high voltage units to be added to the department. A further 25 MeV Accelerator is expected in May of 1983 and the room is ready to receive this unit.

The 6 MeV Accelerator is now working to full capacity and has already shown diminished reactions, decreased side effects and shortened treatment times which have proved to be beneficial to patients.

With the upgraded equipment, the larger volume of patients and improved conditions, the Conjoint Committee on Accreditation of the Training Programs for Medical Radiological Technologists of the Canadian Medical Association has approved increased intake to the program to six technicians over a two year period.

DEPARTMENT OF SOCIAL SERVICES

The Social Services Department spent the year reorganizing and identifying priorities. Three service programs were established - Psychiatry, Gynecology and Rheumatology - and this approach has been well accepted by the medical and nursing staffs.

Emphases for the year were determined to be: staff evaluations and identification of needs; provision of in-services; general review of department commitments - both internally and externally, and the redevelopment of contact with Dalhousie University.

A highlight of the year was the Christmas project which allowed all hospital staff to contribute for needy persons. Social Workers arranged delivery to community agencies for distribution to those in need. As well, the Department organized help for specific persons who were, or had been, patients.

Service Statistics

Total Referrals	5,270
Average Caseload/Worker	462
Number of Staff Associated to Cases	11.4
Number of Staff Assigned to Administration	1

STERILE SUPPLY SERVICE

A detailed study was carried out by representatives of the Convertors Company into all aspects of our present system of recycling of Operating Room draperies versus a Disposable Operating Room drapery concept. It was presented to Administration for consideration.

Representatives of the American Hospital Supply Company carried out a study on a total Disposable Treatment Tray System versus our present recyling of trays. This proposal has also been presented to Administration for further study by the Systems Engineering Department.

Summary

Total sterile dressings, needles, sutures,catheters, syringes	271,842
Total solutions	145,827
Total O.R. linen	623,142
Total number of treatment trays	158,859
Additional trays on loan to other hospitals	27
Total Number of Units Issued	1,199,697
Total number steam sterilizer loads	16,538
Total number E.T.O. gas sterilizer loads	396
Total number gas aerator	396
Total number cylinders gas	38
Total number loads in hot air oven	111
Total number loads in utensil washer	10,831
Total number telephone calls for service	41,957
Average number telephone calls per day	115

DEPARTMENT OF SURGERY

A major event during the year has been the expansion of clinical and research activities in the field of organ transplantation. The number of renal transplantations has increased to 80 cases per year, making our renal transplantation program the largest in any single hospital in Canada.

Several research projects have been associated with the clinical transplantation program, particularly in the evaluation of the new drug Cyclosporin used for the prevention of organ rejection. This drug was found to have superior properties, and it is believed that it will create a revolution in the field of transplantation.

An outstanding team of transplantation research scientists was recruited by the Department of Surgery at Dalhousie University and the team has already had an impact on the renal transplantation program. In addition, a beginning was made in assembling a multidisciplinary team of surgeons, anaesthetists, physicians, pathologists, nurses and technicians to initiate a program of transplantation of the liver.

Research continued to evaluate new drugs for the treatment of cancer.

In the field of Plastic and Reconstructive Surgery, new microsurgery operations have been introduced to reimplant amputated limbs or fingers and to reconstruct parts of the body that were destroyed by accident, disease or surgery.

Orthopedic Surgery introduced the use of non-operative methods of treatment of herniated intravertebral discs.

The Cardiac Surgery Team continued to be one of the busiest units in Canada, with 613 patients undergoing open heart surgery.

VOLUNTEER SERVICES

Volunteers attended on a one-to-one basis to 6,237 out of town patients and contributed in excess of 8,000 hours.

Goods and services volunteered during the year, computed at minimum rates, would give a dollar value of $41,860 if persons were hired or goods purchased.

Volunteers provide clerical and secretarial assistance to several departments. They also perform patient comfort activities such as shopping, refer-

rals for family accommodation, interpreting and tutoring; and provide an escort service and diversions such as craft instruction, books, tape recorders and other entertainment.

The Volunteer Service Department collected, for hospital distribution: 800 pieces of clothing; 500 books, magazines, games; 15 potted plants; 1,000 printed cards about the service; six tape recorders and 100 packs of cards.

Community outreach activities included an information display at Mount Saint Vincent University, assistance to Metropolitan Group Homes and to other hospitals in establishing volunteer services; participation in Volunteer Week and several speaking engagements.

V.O.N. LIAISON OFFICE

The V.O.N. Liaison Officer continued to attend regular para-medical rounds on the various Medical and Surgical floors.

Orientation continued to be given to the Nursing students, new hospital Nursing staff and new V.O.N. staff members.

Various family/patient conferences were attended and frequent contacts were made with clinics in the Outpatient Department of the Hospital.

Patient information sessions were held with 4 West patients on a monthly basis and also as part of the Gynecology/Oncology team education sessions. The V.O.N. Nurse was involved with the patient information sessions on 5 Victoria.

An evaluation on Gynecology/Oncology referrals was done with 38 out of 39 community nurses responding favourably with positive comments in regard to how beneficial the referrals had been, both to the client and family.

ANALYSIS OF HOSPTIAL SERVICES
April 1/82 - March 31/83

Service	Male	Female	Total	Total Deaths*	Death Rate	No. of Autopsies	Autopsy Rate	Patients Receiving Consults	Consult Rate	Total Days	Avg. Days Stay
Medicine	3154	2643	5797	376	6.5%	109	29.0%	1949	33.6%	74330	12.8
Transplant	75	67	142	3	2.1%	1	33.3%	53	37.3%	2081	14.7
Radiotherapy (Radiation Oncology)	169	137	306	13	4.2%	0	-	104	34.0%	4639	15.2
Psychiatry	98	195	293	2	0.7%	1	50.0%	118	40.3%	10400	35.5
General Surgery (Courtesy)	30	275	305	0	-	-	-	68	22.3%	2879	9.4
Surgery A-D Incl.	1803	2379	4182	171	4.1%	29	17.0%	1011	24.2%	47686	11.4
Cardiovascular Surgery	785	335	1120	58	5.2%	20	34.5%	256	22.9%	17149	15.3
Orthopedics	1066	945	2011	14	0.7%	2	14.3%	352	17.5%	22536	11.2
Plastic Surgery	431	356	787	4	0.5%	0	-	119	15.1%	9770	12.4
Urology	1419	444	1863	13	0.7%	0	-	454	24.4%	19002	10.2
Neurosurgery	1019	590	1609	59	3.7%	19	32.2%	506	31.4%	22894	14.2
Oral Surgery	119	158	277	0	-	0	-	20	7.2%	1221	4.4
Otorhinolaryngology	-	-	-	-	-	-	-	-	-	-	-
Gynecology	-	1799	1799	15	0.8%	2	13.3%	232	12.9%	10715	6.0
Newborn	-	1	1	-	-	-	-	-	-	-	-
GRAND TOTAL	10168	10324	20492	728	3.6%	183	25.1%	5242	25.6%	245302	12.9

Prepared by: Medical Records Department
Source: PAS Monthly + Semi-Annual Activity Reports, Summary by Hospital Service.
Date: May 2, 1985